

Name: _____
PC: Long and Synthetic Division Practice

Date: _____
Ms. Loughran

For 1-7, use synthetic division to divide the polynomials.

1. $\frac{x^3 - 5x^2 + 4x - 2}{x + 2}$

2. $\frac{x^3 - 5x^2 + 4x - 2}{x - 2}$

3. $\frac{2x^2 - x + 1 - 4x^3}{x + 2}$

4. $\frac{4a^2 + 4a - 12}{2a - 1}$

5. $\frac{6a^2 - 5a + 10}{3a + 2}$

6. $\frac{2x^3 - 2x + 1}{2x + 4}$

7. $\frac{2x^3 - x^2 - 5}{2x - 5}$

For 8-10, use long division to divide the polynomials.

8. $\frac{2x^4 - x^3 - 2x + 5}{x^2 + 2x + 1}$

9. $\frac{2x^4 - 3x^2 + 7x - 8}{x^2 + x - 3}$

10. $\frac{x^3 + 4ax^2 + 4a^2x + a^3}{2a + x}$